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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,024

09/08/2003

Yoshiaki Tomomatsu

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06/28/2007

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EXAMINER

SCHLACK, SCOTT A

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/658,024	<b>Applicant(s)</b> TOMOMATSU, YOSHIAKI	
	<b>Examiner</b> Scott A. Schlack	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 July 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                     |                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                         | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/15/2005</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 17-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 17-23, the phrase "A printing control program" does not explicitly identify a physical "thing". Programs are neither computer components nor statutory processes, as they are not "acts" being performed. Therefore, the examiner recommends that claims 17-23 be withdrawn or that the phrase, "A printing control program" be changed to "a computer-readable medium encoded with a printing control program". For further explanation, see MPEP § 2106 IV.B.1. and the Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility on the uspto.gov website:

[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 14 recites, "an information processing apparatus

according to claim 10, further comprising notification means for, when the parallel processing is performed by the parallel processing means, notifying, by using the printer driver, basic software installed in the information processing apparatus that the basic software should not perform banding". The examiner views this to be unclear as it seems to contradict the applicant's specification, which discloses parallel processing as simultaneous scanning/printing in units of bands, whereas the unbanding process is disclosed as full page spooling followed by printing (not parallel processing). Basically, according to the examiner's interpretation of the applicant's disclosed invention, when parallel processing is performed, banding is also performed. The applicant is required to amend claim 14 or show clear support for the claimed features in their specification.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oyanagi (US 2002/0044300) in view of Ueda (6,407,822).

With respect to claim 10, Oyanagi discloses an information processing apparatus (Multi Function Printer of Fig 1) in which application software (Scanner control software executing scanner processing task 41 of Fig 2) and a printer driver (Printer driver executing interlaced processing and print execution processing tasks 40 and 42 of Fig 2, page 4, paragraph 0081 and S34 of Fig 6) are installed, comprising output means

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used by the application software (Scanner control software) to output one page of data part by part (band by band processing, page 3, paragraph 0061) in the same order as the order in which the data is printed on printing paper in a printing direction (Image data for one page is scanned and processed band by band, PD1-PD48 of Fig 7, and output to the Interlaced Processing Memory (even and odd memories representing forward and back printhead passes), page 4, paragraph 0081, to await print task processing, page 4-5, paragraph 0082); conversion means used by the printer driver (Printer driver executes print execution processing task, which converts the scan data stored in the interlaced memory to printer-ready data, S34 of Fig 6) to convert the input data into print data without spooling one page of data (page 3, paragraph 0061) and to output the resultant print data to an image output device (pages 4-5, paragraphs 0082-0085). Oyanagi does not explicitly state that the output means and the conversion means are performed in parallel. (Although the examiner believes this can be inferred by the fact that when it is judged that a page worth of data is not complete, the interlaced memory is checked for subsequent scanned bands of data, page 5, paragraph 0084; meaning that during the print processing, the scan processing (output means) took place in parallel to the print processing (conversion means) to allow for the data to be present in memory). Ueda does disclose parallel processing means for performing the processes by the output means (scanner data processing means) and the conversion means (printer data processing means) (col 12, lines 8-11).

Claim 1 recites identical features as claim 10 except claim 1 is a method claim. Thus, arguments similar to that presented above for claim 10 are also equally applicable to claim 1.

Claim 17 recites identical features as claim 10 except claim 17 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 10 are also equally applicable to claim 17. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 11, Oyanagi in view of Ueda disclose an information processing apparatus according to claim 10, further comprising determination means (Ueda: Copy mode selection, col 4, lines 17-20 and 806 of Fig 3) for, when a parallel processing mode (Ueda: simultaneous scanning and printing) is specified by the application software, determining whether the printer driver supports the parallel processing mode (Ueda: col 12, lines 8-11).

Claim 2 recites identical features as claim 11 except claim 2 is a method claim. Thus, arguments similar to that presented above for claim 11 are also equally applicable to claim 2.

Claim 18 recites identical features as claim 11 except claim 18 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 11 are also equally applicable to claim 18. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 12, Oyanagi in view of Ueda disclose an information processing apparatus according to claim 11, wherein when the parallel processing

mode is specified by the application software (Ueda: Printing operation with parallel scanner processing, col 12, lines 8-11), the determination means is realized by the application software and the printer driver (Ueda: S34 of Fig 6) via an extended API (Ueda: Extended Information Processing Apparatus submitting remote printing operation, col 3, lines 36-41, col 12, lines 8-11 and 10 of Fig 1).

Claim 3 recites identical features as claim 12 except claim 3 is a method claim. Thus, arguments similar to that presented above for claim 12 are also equally applicable to claim 3.

Claim 19 recites identical features as claim 12 except claim 19 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 12 are also equally applicable to claim 19. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 13, Oyanagi in view of Ueda disclose an information processing apparatus according to claim 10, further comprising setting means for, when the parallel processing (Ueda: col 12, lines 8-11) is performed by the parallel processing means, disabling, by using the printer driver, a spooling capability of basic software installed in the information processing apparatus (Oyanagi: When printing in High definition one print pass is considered a band worth of data and such band processing disables full page spooling, page 3, paragraph 0056-0057, 0061, Fig 13).

Claim 6 recites identical features as claim 13 except claim 6 is a method claim. Thus, arguments similar to that presented above for claim 13 are also equally applicable to claim 6.

Claim 20 recites identical features as claim 13 except claim 20 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 13 are also equally applicable to claim 20. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 14, Oyanagi in view of Ueda disclose an information processing apparatus according to claim 10, further comprising notification means for, when the parallel processing is performed by the parallel processing means, notifying, by using the printer driver, basic software installed in the information processing apparatus that the basic software should not perform banding (Oyanagi: page 3, paragraph 0061 and Ueda: col 12, lines 8-11).

Claim 7 recites identical features as claim 14 except claim 7 is a method claim. Thus, arguments similar to that presented above for claim 14 are also equally applicable to claim 7.

Claim 21 recites identical features as claim 14 except claim 21 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 14 are also equally applicable to claim 21. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 15, Oyanagi in view of Ueda disclose an information processing apparatus according to claim 10, further comprising positional relationship detection means for detecting, by using the printer driver, the positional relationship between data output from the application software and a band output by the image output device (Oyanagi: The data for a print pass is a band output by the image output

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device, page 3, paragraph 0061, and the positional relationship between the scan data stored in the odd and even buffer memory, Figs 10-12, associated with one print pass -band- is the positional relationship between data output from the application software and a band output by the image output device, page 3, paragraphs 0056-0057), wherein data divided into bands is output to the image output device in accordance with the positional relationship detected by the positional relationship detection means (Oyanagi: Band or one print-pass worth of data is output to the printer in accordance with the even and odd buffer memory data pertaining to one print pass, page 4, paragraph 0081).

Claim 8 recites identical features as claim 15 except claim 8 is a method claim. Thus, arguments similar to that presented above for claim 15 are also equally applicable to claim 8.

Claim 22 recites identical features as claim 15 except claim 22 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 15 are also equally applicable to claim 22. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 16, Oyanagi in view of Ueda disclose an information processing apparatus according to claim 15, wherein when the application software outputs one page of data part by part in the same order as the order in which the data is printed on printing paper in a printing direction, the application software divides the one page of data into bands and outputs the data on a band-by-band basis (Oyanagi: page 3, paragraphs 0056-0057 and 0061).

Claim 9 recites identical features as claim 16 except claim 9 is a method claim. Thus, arguments similar to that presented above for claim 16 are also equally applicable to claim 9.

Claim 23 recites identical features as claim 16 except claim 23 is a computer readable medium claim. Thus, arguments similar to that presented above for claim 16 are also equally applicable to claim 23. Applicant's attention is further invited to 14 and 18 of Fig 1, for a computer-readable medium disclosed by Oyanagi.

With respect to claim 4, Oyanagi in view of Ueda disclose the print control method according to claim 2, with a determination step. Oyanagi in view of Ueda do not disclose wherein the determination step further comprises determining whether the communication link between the information processing apparatus and the image output device is a high-speed communication. The examiner takes Official Notice that determination based on communication link type, such as high-speed communications, was well known at the time of the invention to those skilled in the art. Therefore it would have been obvious to combine Oyanagi in view of Ueda with prior art to get the method of claim 2. The suggestion or motivation for doing so would have been to specify device communication link type as the determination factor.

With respect to claim 5, Oyanagi in view of Ueda disclose the print control method according to claim 2, with a determination step. Oyanagi in view of Ueda do not disclose wherein the determination step further comprises determining whether the recording medium on which the resultant print data is outputted is a predetermined medium. The examiner takes Official Notice that determination based on recording

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medium type, such as a predetermined medium, was well known at the time of the invention to those skilled in the art. Therefore it would have been obvious to combine Oyanagi in view of Ueda with prior art to get the method of claim 2. The suggestion or motivation for doing so would have been to specify recording medium type as the determination factor.

### ***Conclusion***

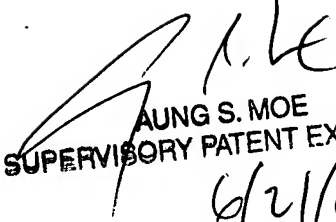
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott A. Schlack whose telephone number is (571)272-7954. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571)272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Scott A. Schlack

  
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SUPERVISORY PATENT EXAMINER  
6/21/07